BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

Atty Docket: J763-001 US

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class ail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on: May 7, 2004

Gina Catanzaro
Dated: May 7, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT	:	Stefan Wayne Lauter
SERIAL NO.	:	10/658,064
FILING DATE	:	September 9, 2004
FOR	:	TABLETOP WARGAME CAMPAIGN DATA MANAGEMENT
EXAMINER	:	--
GROUP ART UNIT	:	3713

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUBMISSION OF PRIORITY DOCUMENT

Sir:

A certified copy of applicant's priority application, Australia Patent Application No. 2002951338, filed September 11, 2002, is enclosed.

Applicant claims the right of priority pursuant to 35 U.S.C. § 119.

Dated: May 7, 2004

Respectfully submitted,

Peter C. Michalos
Reg. No. 28,643
Tel: (845) 359-7700

NOTARO & MICHALOS P.C.
100 Dutch Hill Road, Suite 110
Orangeburg, NY 10962-2100

Patent Office
Canberra

I, JONNE YABSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2002951338 for a patent by STRATEGIC SIMULATIONS AND SOFTWARE as filed on 11 September 2002.

I further certify that the above application is now proceeding in the name of STEFAN WAYNE LAUTER pursuant to the provisions of Section 113 of the Patents Act 1990.

WITNESS my hand this
Tenth day of September 2003

J R Yabsley

JONNE YABSLEY
TEAM LEADER EXAMINATION
SUPPORT AND SALES

AUSTRALIA
Patents Act 1990

PROVISIONAL PATENT SPECIFICATION

METHOD AND COMPUTER PROGRAM FOR THE MANAGEMENT OF TABLETOP WARGAME CAMPAIGNS

The invention is described in the following statement :

METHOD AND COMPUTER PROGRAM FOR THE MANAGEMENT OF TABLETOP WARGAME CAMAPAIGNS

This invention relates to the improvement in the method and computer program, which provides a means to manage a simulated military campaign for tabletop wargames.

Field of Invention

The field of the invention is computer simulation in the area of tabletop wargaming.

Background of Invention

Many tabletop wargames are fought as stand alone tactical battles. However, some wargamers have attempted to play a more strategic game simulating a military campaign. Without a method and a tool, such as a computer system or program, to manage the details of the contacts and battles between the various players' forces, only the most basic of information can be managed using manual methods. Furthermore, many assumptions that limit the realism of the campaign must be made using manual methods. One area that is very difficult to achieve accuracy is the timing of events in the campaign. Hence the simulation of military strategies, such as manoeuvre theory, is rarely achieved in a satisfactory manner for tabletop wargamers in a campaign.

Other attempts at methods and computer programs in this area have three major shortcomings. Firstly they simplify the issue of timing by using alternate movement turns for the two players, removing the time critical aspect of related engagements on a battlefront, especially where mobility is a key factor. Secondly they divide a map into a series of grid cells with the position of a military unit based the map cell it occupies, rather than using more accurate xy coordinates for unit location. Thirdly they do not allow military hierarchies to be represented; hence only one level of unit structure can be controlled. All of these factors greatly reduce the realism of a simulated campaign.

Summary of the Invention

These issues are overcome by the present invention, a method and computer program, which is time based rather than turn based and allows the issuing of orders to occur simultaneously in game time between the two players. The invention deals with the progression of time by the technique of advancing time in small discrete steps which stops when key information, such as the outcome of battles must be supplied. The general processing of activities and flow of information is shown in Figure 1. Each of the players and the referee must have a copy of the computer program with key information being exchanged through the transfer of data files.

Initially the Referee registers the campaign details, such as; the campaign name, the opposing armies names, passwords and daily reinforcement levels, into the computer program. Each player is then sent a copy of the basic data files. The players must then register their army units into the computer program. A sample registration file is shown in Figure 2. The information required in the registration file includes: unit name, unit class, unit type, supervisory unit name, strength in each troop and equipment category, and starting location coordinates. Special values are –1s which are used to indicate that the values are derived from a related hierarchical unit. For example, if a squad level unit has -1s for xy coordinates then it uses the xy coordinates of its' supervisory unit. Also all detachment level units will have –1s for their strength in the composition categories as they derive their strength from all of their subordinate units at the squad level.

Two special unit types are mandatory. These are a supply unit, for resupplying units, and a reserves unit, which will hold the reinforcement levels. The computer program checks the data in the registration file before the information is logged into the campaign data files. If errors have been made it will reject the registration file and produce an error report. The error report can be inspected by the player and the errors corrected allowing the registration file to be successfully loaded into the computer program and the campaign data files.

The players can then review the status of the units and must update the intelligence file with the coordinates of the enemy front. Orders for each unit, see table 1 for a list of valid orders and their description, can be issued. Once all orders have been issued the players updated data files are sent to the referee. The referee checks the files using the computer program and sends a fully updated set to each player. At this point the players can only advance the campaign time which is done by incrementing time in small discrete time steps.

After each discrete time step the computer program updates the location of any moving unit by the distance covered in that time step and checks for any contacts between units both hostile and allied. If a contact occurs, apart from a unit executing a recon order, the time progression is advanced for only 10 more steps. This allows the location of other units to be progressed while the engaged units are locked in their battle before the time progression stops.

The invention then updates a situation report file that can be inspected by the players and referee, once the time progression stops, to determine which tabletop wargames must be conducted. The information needed to determine the strength and condition of the forces involved in the contacts can be obtained from the computer program. The players must carefully note the results of the tabletop wargamers, which can be played using any set of agreed rules. The information that must be noted is the casualties and the number of tabletop turns which is then translated into campaign minutes, usually one turn for each player equates to 3 campaign minutes.

The updated data files from each player are sent to the referee along with the results of the tabletop wargames. Once the results, casualties and victory or defeat status of the engaged units, have been entered into the computer program by the referee the updated data files are then sent back to the players. The computer program advances time for a period of time equal to the longest tabletop battle plus 15 minutes before allowing the players to restart the main activity cycle as per Figure 1 and the reissuing of new orders.

The invention also stops at 1800 hrs game time each day to allow the situation of units to be reviewed and new orders issued. The invention allows orders to be issued at the commencement of a campaign and at any point the computer program stops advancing the game time. The scheduling of orders in advance is another feature of the invention providing a greater level of realism than existing software. Another unique feature of the invention is that if the detachment level headquarters' command models are casualties then no new orders can be issued to the detachment until those casualties are replaced through reinforcements.

The invention allows units to be moved and have positions defined in xy coordinates rather than grid cell numbers. It achieves this by calculating an Area of Influence (AOI) for each unit based on the size of the unit and its formation. It then uses the centre of the unit for movement calculations but the corners of the AOI for contact calculations. The invention allows two types of formations, line and column, see Fig 3.

Due to the way the invention's data structures are designed it can also allow several levels of unit hierarchy. Hence a unit and its supervisory unit in an army can be controlled as one entity or separately regardless of the wargame rules used for the tabletop battles. However the invention is designed to be compatible with the most common tabletop wargame rules, especially in the area of the unit composition. The invention has 7 composition categories with 6 directly compatible to those used in tabletop wargame rules with the remained to accommodate super heavy support resources. Figure 4 shows the hierarchy relationships and composition categories.

While existing products offer some capability to include the issue of supply, this invention does it in a more complete fashion, involving a supply base and a number of specialist supply units that must be directed to combat units. Furthermore at the time of resupply units can also receive reinforcements a feature not present in other systems.

Another innovative feature is the determination of a weariness factor for units based on the number of rest periods during a prolonged movement. In this way it is possible to increase a unit's weariness factor to a level such that their combat performance is reduced. If extended to the limit a unit will become exhausted and cease to be able to engage in combat.

Table 1 - Orders List

Order	Description	Additional information required
Advance	This order causes a unit to move to a destination defined by xy coordinates with up to 4 waypoints in between.	Unit name receiving the order Destination xy coordinate Any waypoint xy coordinates Formation of unit Commencement time of order
Recon	This order causes a unit to move to the destination xy coordinate with up to 4 waypoints in between. However unlike advance if an enemy unit is contacted the unit will automatically withdraw and generate a situation report with an estimation of the enemy strength. Also unlike a contact during the execution of an advance order the campaign will not stop but continue.	Unit name receiving the order Destination xy coordinate Any waypoint xy coordinates Formation of unit Commencement time of order
Create Task Force	This allows a Task Force to be created with the unit receiving the order to become the first unit assigned to the Task Force.	Unit name receiving the order Name of new Task Force
Assign	Unit's assigned to a Task Force treat the Task Force as their supervisory unit. Units assigned must be within 500m of the Task Force.	Unit name receiving the order Name of existing Task Force
Supply	This order can only be given to a unit (squad) with unit type of supply.	Unit name receiving the order Destination xy coordinate Any waypoint xy coordinates Commencement time of order
Retire	This order is used when a detachment level unit is no longer operational. For example a detachment that is completely	Unit name receiving the order

	destroyed or a Task Force that has had all of its units assigned back to their original detachments.	
Reinforce	This order, through a special menu option allows the allocation of replacement men and equipment for units that have sustained losses. The replacements only occur when that unit is resupplied.	Unit, detachment level, name receiving the order. The software then prompts for each squad level unit the allocation for each category, see Figure 4.

Abstract

A method and system for the management of tabletop wargame campaigns is disclosed. The method and system provide a means to conduct campaigns in a time based fashion. Hence it calculates the location and interaction of units in time. Another major feature of the method and system is the ability to define a unit's location using x and y coordinates. Consequently the boundaries of a unit's formation is determined and used in determining the interactions that a unit has with other units. Furthermore the method and system also allows hierarchical unit structures and the creation of ad hoc Task Forces. Command and control of the units can occur at each level below the highest level. Commands can be scheduled to take effect at a future time in the game. Also the method and system prevents the issuing of new orders at the detachment level if the headquarters' casualties have not been replaced.

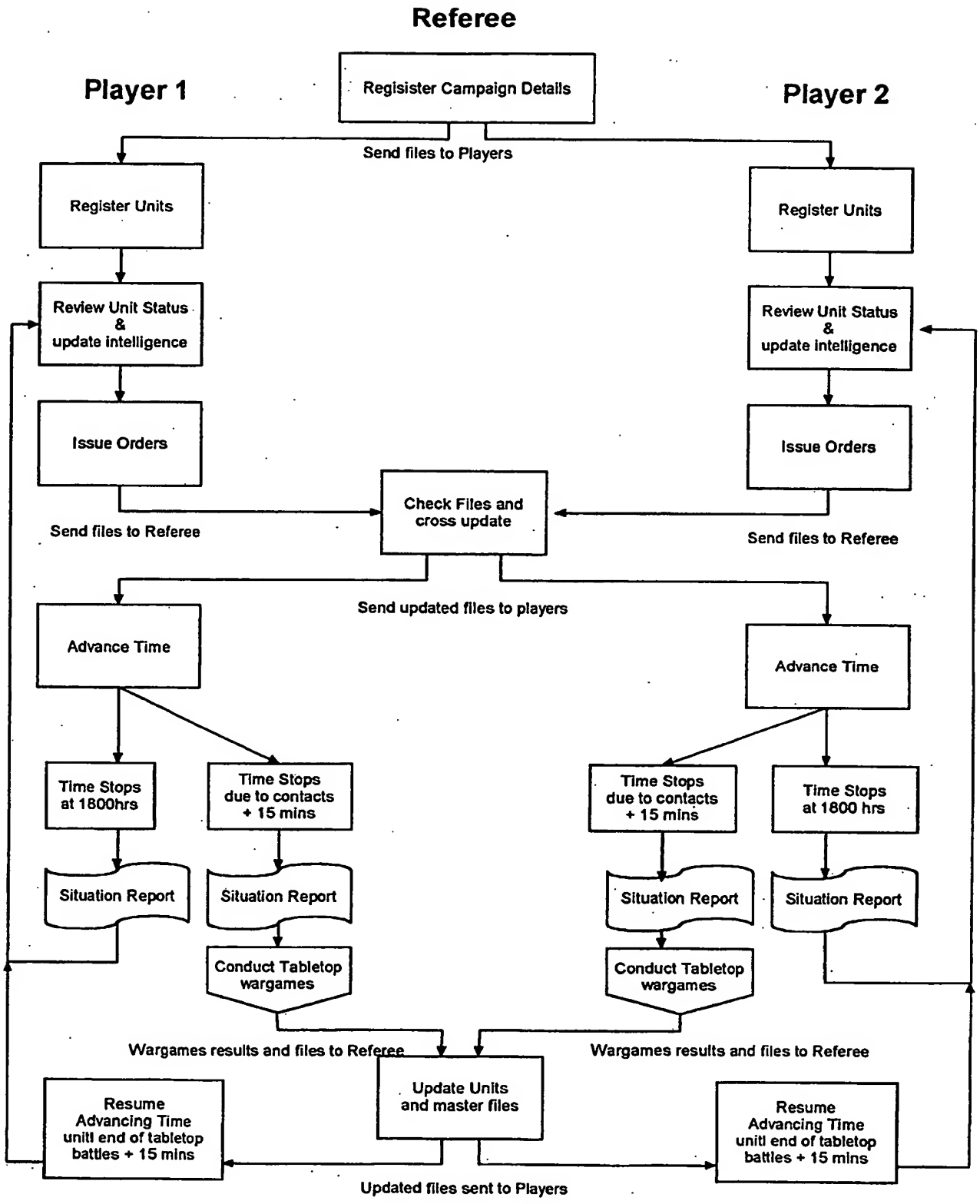

Figure 1 General Processing Activities and Information Flow

01/Dark Angels Strike Force 01	Squad	Tactical M	Dark Angels Strike Force 01	1	0	9	0	0	0	1	-1	-1
02/Dark Angels Strike Force 01	Squad	Tactical M	Dark Angels Strike Force 01	1	0	9	0	0	0	1	-1	-1
03/Dark Angels Strike Force 01	Squad	Tactical M	Dark Angels Strike Force 01	1	0	5	0	0	0	1	-1	-1
04/Dark Angels Strike Force 01	Squad	Bike Marines	Dark Angels Strike Force 01	0	0	0	3	0	0	0	-1	-1
05/Dark Angels Strike Force 01	Squad	Predator	Dark Angels Strike Force 01	0	0	0	0	1	0	0	-1	-1
06/Dark Angels Strike Force 01	Squad	Predator	Dark Angels Strike Force 01	0	0	0	0	1	0	0	-1	-1
HQ/Dark Angels Strike Force 01	Force HQ	Armoured Car	Dark Angels Strike Force 01	1	1	0	0	0	0	1	-1	-1
Dark Angels Strike Force 01	Force	Rhino	3rd Space Marines Army	-1	-1	-1	-1	-1	-1	-1	205750	312500
01/Crimson Fists Force Anvil	Squad	Tactical M	Crimson Fists Force Anvil	1	0	9	0	0	0	0	-1	-1
02/Crimson Fists Force Anvil	Squad	Tactical M	Crimson Fists Force Anvil	1	0	9	0	0	0	0	-1	-1
03/Crimson Fists Force Anvil	Squad	Tactical M	Crimson Fists Force Anvil	1	0	9	0	0	0	1	-1	-1
04/Crimson Fists Force Anvil	Squad	Assault M	Crimson Fists Force Anvil	1	0	9	0	0	0	0	-1	-1
05/Crimson Fists Force Anvil	Squad	Veteran M	Crimson Fists Force Anvil	1	0	6	0	0	0	0	-1	-1
06/Crimson Fists Force Anvil	Squad	Terminator	Crimson Fists Force Anvil	1	0	4	0	0	0	0	-1	-1
07/Crimson Fists Force Anvil	Squad	Devastator	Crimson Fists Force Anvil	0	0	0	0	5	0	0	-1	-1
08/Crimson Fists Force Anvil	Squad	Dreadnought	Crimson Fists Force Anvil	0	0	0	0	1	0	0	-1	-1
09/Crimson Fists Force Anvil	Squad	Predator	Crimson Fists Force Anvil	0	0	0	0	1	0	0	-1	-1
10/Crimson Fists Force Anvil	Squad	Land Raider	Crimson Fists Force Anvil	0	0	0	0	0	1	0	-1	-1
HQ/Crimson Fists Force Anvil	Force HQ	Commander	Crimson Fists Force Anvil	1	0	0	0	0	0	0	-1	-1
Crimson Fists Force Anvil	Force	Tactical M	3rd Space Marines Army	-1	-1	-1	-1	-1	-1	-1	206000	312250
01/66th Supply Det	Squad	Supply	66th Supply Det	0	0	4	0	0	0	2	-1	-1
02/66th Supply Det	Squad	Supply	66th Supply Det	0	0	4	0	0	0	2	-1	-1
03/66th Supply Det	Squad	Supply	66th Supply Det	0	0	4	0	0	0	2	-1	-1
04/66th Supply Det	Squad	Logistics	66th Supply Det	0	0	4	0	0	0	2	-1	-1
HQ/66th Supply Det	Det HQ	Logistics	66th Supply Det	1	0	0	0	0	0	0	-1	-1
66th Supply Det	Detachment	Logistics	3rd Space Marines Army	-1	-1	-1	-1	-1	-1	-1	206000	311750
3rd Army Reserve Detachment	Detachment	Reserve	3rd Space Marines Army	0	0	0	0	0	0	0	206000	311750
3rd Space Marines Army	Army	Tactical M		-1	-1	-1	-1	-1	-1	-1	206000	311750

Figure 2 - Sample Registration File

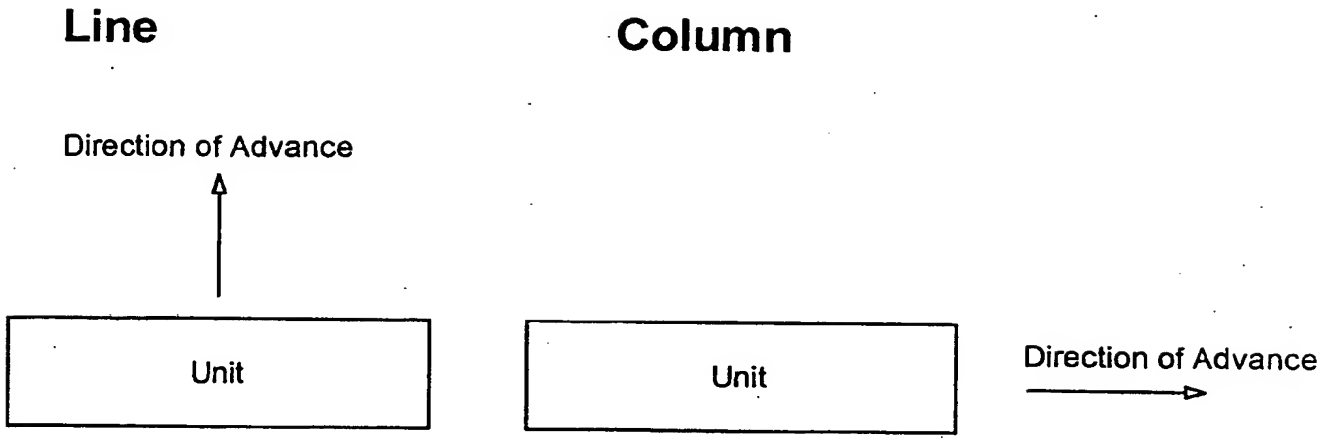

Figure 3 Unit Formations

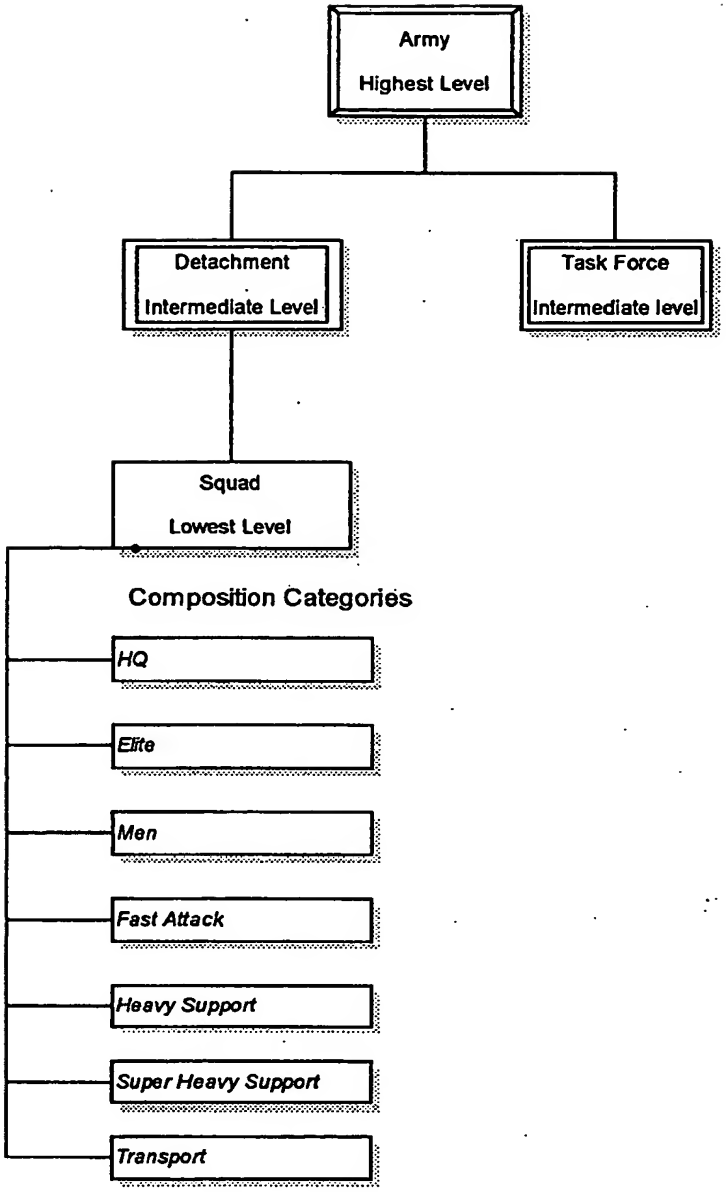

Figure 4 Unit Hierarchies and Composition Categories